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## Hydrangeas—How to Grow Them

With notes on varieties, watering, fertilizers, temperature, disease control, pinching and propagating

By JOSEPH S. MERRITT, Jr.

WE ARE hydranger specialists, forcing only a few into flower each year so that we can know variety, color and characteristics. For the past two years we forced a large number of hydrangeas for the national flower shows in Washington, D. C., in 1950, and Baltimore, Md., in 1951.

We are always looking for new varieties, trying to find better ones than are now available. Some of the new varieties that show promise have been imported from Europe and some were hybridized here in the United States.

New varieties: We like Charm because it grows well and is a good early forcing variety. It breaks nicely when topped and makes a nice compact plant. It forces easily, making a nice size flower head. Charm flowers with an outstanding brilliant color, a good, deep pink.

Charming grows similar to Merritt's Beauty. It breaks well when topped and forces about mid-season. It is a nice, clear light pink that will blue nicely.

Dixie grows well with nice heavy stems and produces large flower heads. It blooms a light pink and makes a blue about the shade of Niedersachsen...

Drapes Pink branches well and grows easily. It is a good early forcer with good size flower heads. It is a clear pink about the shade of Rosabelle.

Dundalk has wiry, tough stems that do not need stakes. It is a short grower and will not stretch if placed close together on the beds. Dundalk is a good Mother's Day variety because it holds dormancy well. It blooms with a good dark pink, perhaps a salmon color.

Rose Supreme is also a good one for late flowering. It grows to a medium height with strong stems, and makes the largest flower heads of any variety that we have seen. If grown properly the flower heads will measure a full 12 inches across. It is a very nice pink, perhaps a shade lighter than Merveille, and blues very well, about the same color as Kuhnert.

Southland grows and breaks well when topped. It flowers a nice dark pink with a good size flower head.

Springtime, just a shade lighter than Southland, has a very pleasing color. It breaks nicely when topped and \* grows to about a medium height.

Joan Merritt is a new white. It is a sport of Merveille and is a whiter white than other ones.

Benelux won the prize for the best hydrangea at the flower show at Gent, Holland, two years ago. It is reported to have an exceptionally large flower head. It is a good strong grower.

The variety Bobby Merritt is a good clear pink with large florets; it makes a nice round flower head, and grows free and a little taller than Jean Merritt.

Jean Merritt is a good short grow-

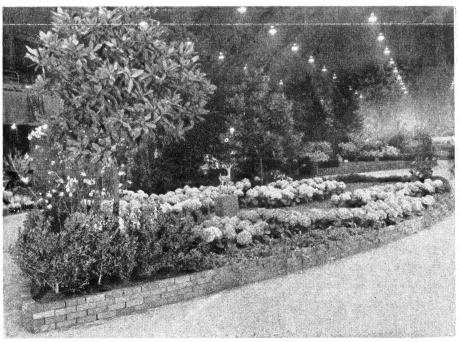
er that will not stretch very much when crowded. It grows and breaks well. The flower is of a good commercial size and is a pleasing dark nink

Growing hydrangeas: First makes sure to get the variety that grows best for you. Try these new ones as they come out, but stick to your old stand-by's until you are sure the new varieties will do a better job for your under your growing conditions.

If you propagate your own cuttings, do not root the blind wood from your forcing stock. Instead, grow plants as stock plants; remove-the flowering buds while still dormant, and when they break out with new shoets you will get plenty of cuttings from a few plants. By doing this, you will be able to keep your varieties straight.

When growing mixed varieties, blind wood cuttings may cause you in a few years to increase the poor blooming varieties and decrease the more desirable ones. Prune your forcing plants both in summer and fall to eliminate weak shoots and to strengthen the flowering wood. In that way you should not have any blind wood; if you do get a few blind breaks from the bottom of the plant, they should not be allowed to weaken your flowering shoots. Rubthem off as soon as they appear.

Leaf-bud cuttings are very good. They will help you to get a volume of cuttings from your stock plants all at one time. They root about as good as tip cuttings and will catch up and do as well as tip cuttings in a short time. Leaf bud cuttings



The picture above is of a hydrangea garden prepared by the Merritt firm for the recent National Flower Show held in Washington, D. C.

Mr. Merritt presented this material at the Middle Atlantic Florists Association Convention in Richmond, Va., July 22-25.

should not be made after mid-August as they do poorly after that date.

After the cuttings are rooted they should be potted to a soil that is low in nitrogen, in small-size pots in a shaded greenhouse. A good soil mixture should consist of two parts loam, one part well rotted cow manure, one part sand if the soil is heavy, and one part peat if needed. To this add a 4-inch pot of superphosphate, a  $2\frac{1}{2}$ -inch pot of murate of potash and a  $2\frac{1}{2}$ -inch pot of calcium sulphate to a wheelbarrow of soil. The pH should be about 6-6.5.

Soil mixture: Our soil is a light sandy loam. No matter how hard it would rain one day we could work the ground the next if the sun shone, and there would be no danger of lumping. To this soil we add well rotted cow manure to give it some body and to help build it up. The manure is added several months in advance. At potting time we add bone meal and horn shavings, plus the proper fertilizers, to get the desired nutrient levels. We add nitrogen as needed through the summer. Our soil and climate must be just right for hydrangeas. All we do is pot them up and let them grow.

After the danger of frost in the spring, the 2- or 3-inch plants should be taken outside and shifted to larger pots that the plants are to be grown in during the summer. Remember that larger size pots need some type of drainage. Pot to the same type soil as mentioned before except for the addition of nitrogen.

During the growing season, hydrangeas will need additional feed. About every two weeks from mid-July through August, feed with liquid ammonium sulphate at the rate of three pounds to 100 gallons of water or one ounce to two gallons. Add a complete fertilizer if necessary once or twice as the soil requires. Use a 15-30-15 mixture at the rate of three pounds to 100 gallons of water. If the plants develop chlorosis, the usual way to correct this condition is by adding iron sulphate at the same rate.

The success of field-grown hydrangeas depends largely on adequate rainfall and moderate heat in the summer. They are hard to properly feed and just do not do as well as pot-grown plants.

Pinching: Pinch in late June to early July in this section. Top Merveille, Strafford, Dundalk and the like early—June 20. Gertrude Glahn, Altoona, Europa, Hamburg, and the ranker growing varieties should be

topped about July 1, no later. The time of pinching depends on the locality, but the time should not vary much more than a week from North to South. The important thing to remember is to pinch early enough to produce enough growth before bud set in the fall. Pinch as low as possible, leaving two sets of leaves if practical. This will give the plant enough lateral buds to break with two to four shoots.

Watering: It is most important to have an adequate watering system. Hydrangeas require lots of water. Plunge the pots to reduce drving out, but be very sure that the soil is well drained. Hydrangeas need water but they cannot stand wet feet. Use raised beds of cinders or sand to plunge the pots in unless your soil is extremely well drained. Our soil is very well drained and our plants are never overwatered. If your plants are off-color and stunted, especially after a rainy spell, it just might be that the pots are practically sitting in water.

Water freely until about the end of September then taper off. Try to water just enough to keep them from wilting.

Don't take a chance on frost. Protect your hydrangeas before the danger of frost. The best storage is a dark storage with a temperature range of 35 to 40 degrees F. or as near as possible. Keep your soil moist, not wet, in storage. Avoid drying as this will cause shrivelling of the buds. Allow plenty of air circulation to help prevent fungus. Spray or dust hydrangeas in storage with Fermate, Zerlate or Parsate. We have had best results with Zerlate.

When poinsettias are moved out of the houses at Christmas time, Dec. 20-24, move the hydrangeas in. Start them off at 50 to 56 degrees F. night temperatures for about two weeks, then raise the temperature to 60 degrees.

If you buy your hydrangeas from a specialist, get them when they are dormant, already to start to force. It may be best to put these plants back to the same size pots in order to let the roots get started to grow before shifting them to the finishing size.

If they are shifted at once, then try a light crushing of the dirt ball before potting. This will help it to take up water more readily. The hard dirt ball on the dormant plant may shed water and only the added soil around the ball may get wet when you first water, making it soaking wet while the original ball is still dry. Naturally the roots are not going to want to reach out into this soaking wet soil. To help avoid this condition, try soaking the dormant ball in a bucket of water before potting it up. This way very little water will be required and the plants will get off to a better start.

Never let hydrangeas dry out or they will burn. Try to anticipate their needs and water accordingly in the morning. Ventilate as much as possible, even leave a crack of air on cold nights. At 60 degrees F., flower buds should show eight weeks before sale.

Fertilizing: It may be advisable to pot to a soil that is low in nitrogen and add a complete fertilizer when the plant is growing and putting out new roots. Try using 15-30-15 liquid fertilizer or, whenever practical, have your soil tested and add the fertilizer as required. We use Electra in the dry form, adding a thimbleful to a 5-inch pot every ten days until the color shows. By using a thimble you can get a more consistent application with dry fertilizers. The Electra works ideally with our soil mix and we get excellent results. Always remember never to apply any fertilizer to a plant when the soil is dry - moisten it first and then apply the fertilizer.

The best clear pink color is obtained when the pH is 6.0 or a little over and the nitrogen in the soil is optimum. If there is too much afuminum in the soil, add superphosphate to help tie it up.

For blues, add aluminum sulphate at the rate of one pound to five gallons of water and water this on three to seven times, as needed. If your water is alkaline, use iron sulphate to counteract it.

Keep red-spider, aphids and fungus controlled. Use Parathion aerosol or spray for red-spider and aphids, and use Zerlate for fungi.

Remember that the best hydrangeas come from those that are properly cared for, well watered, well fed and free of insects and fungus.

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